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JUVENILE SEX OFFENDERS COMPARED TO NON-SEX OFFENDERS

A Review of the Literature 1995-2005

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An unresolved but clinically important issue in the literature on juvenile delinquency is to what extent juvenile sex offenders resemble non-sex offenders with respect to individual, familial, and environmental characteristics. The current article reviewed published studies (1995-2005) comparing sex offenders with non-sex offenders. The 17 articles meeting the inclusion criteria suggest that differences exist between sex offenders and non-sex offenders on personality characteristics, behavioral problems, history of sexual abuse, nonsexual offending, and peer functioning. Inconsistent results were found for demographic factors, family functioning and background, antisocial attitudes, and intellectual and neurological functioning. Although it is likely that sex offenders can be differentiated from non-sex offenders on a number of characteristics, caution is warranted because of methodological differences between studies and small samples size. Also, studies show that sex offenders are a heterogeneous group. Further research should take into account this heterogeneity by including sex offenders from clearly circumscribed groups and investigating characteristics specifically related to sexual behavior.

Key words: *comparative study; review; juvenile sex offenders; juvenile non-sex offenders*

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KEY POINTS OF THE RESEARCH REVIEW

- There are few comparative studies of juvenile sex and non-sex offenders.
- The studies are difficult to compare because of methodological issues.
- Sex offenders seemed to differ from non-sex offenders on personality characteristics, problem behavior, history of sexual abuse, nonsexual offending, and peer functioning.
- Inconsistent results were found for demographic factors, family functioning and background, antisocial attitudes, and intellectual and neurological functioning.
- Future research should take into account the heterogeneity of groups of sex and non-sex offenders.

IN THE 1970s AND 1980s, when society became aware that juveniles were capable of committing impermissible sex offenses, the scientific and clinical interest in sexually delinquent behavior of juveniles began and has since then increased steadily. To curb sex offenses, a number of specific treatment programs were developed. Before this time, juvenile sex offenders had been either referred to traditional counseling programs (Ryan, 1998) or, frequently, were given no treatment because of the prevailing idea that sexual and abusive behavior by juveniles is harmless (Ryan, 1999). Until now, a crucial problem in the development of targeted treatment programs for juvenile sex offenders has been the lack of insight in the specific characteristics of these offenders. An important issue in that respect is whether treatment programs should be different for sex offenders than for non-sex offenders. This issue has remained unresolved because earlier literature reviews (Aljazeera, 1993; Becker & Hunter, 1997; Bourke & Donohue, 1996; Righthand & Welch, 2001; Vizard, Monck, & Misch, 1995; Weinrott, 1996) found only few comparative studies between sex offenders and non-sex offenders.

The interpretation of results from the few existing studies comparing juvenile sex offenders with non-sex offenders is often hampered in two ways. First, studies show that a substantial number of juvenile sex offenders also commit nonsexual offenses, making it very difficult to clearly distinguish between the two groups

(e.g., Fehrenbach, Smith, Monastersky, & Deisher, 1986; Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996). Butler and Seto (2002) stressed the need to take into account criminal versatility when comparing juvenile sex offenders with non-sex offenders. In their sample, sex offenders in general were found to be rather similar to non-sex offenders with respect to childhood behavioral problems, current behavioral adjustment, and antisocial attitudes and beliefs but had a lower risk for further delinquency. The subgroup of sex-only offenders—those who committed only sex offenses and no other type of offenses—had fewer childhood behavioral problems, better current adjustment, more prosocial attitudes, and a lower risk for future delinquency than did the sex offenders who also committed other delinquent acts, whereas the latter offenders resembled criminally versatile offenders.

The second obstacle to interpreting existing studies is that juvenile sex offenders constitute a heterogeneous group. Beckett (1999) stated that many studies consider youngsters who molest children (at least 4 or 5 years younger than their perpetrator) and youngsters who rape or sexually assault peers or adult women as a homogeneous group. Studies comparing juvenile child molesters with rapists have revealed differences between the two groups (e.g., Hunter, Figueredo, Malamuth, & Becker, 2003; Hunter, Hazelwood, & Slesinger, 2000), a finding that was confirmed in studies on adult sex offenders (e.g., Gudjonsson & Sirgurdsson, 2000). Compared to juvenile rapists, child molesters were found to exhibit more socially inadequate behavior, to be more socially isolated (Hsu & Starzynski, 1990; van Wijk, 1999), and to have more often been victims of sexual abuse (Ford & Linney, 1995; Worling, 1995). Moreover, although child molesters more often exhibited internalizing problems, juvenile rapists had higher levels of externalizing problem behavior (Becker & Hunter, 1997; Carpenter, Peed, & Eastman, 1995; Katz, 1990). With respect to outcome, studies on adult sex offenders have found that rapists reoffended more frequently with nonsexual crimes than do child molesters (Hanson & Bussière, 1998; Quinsey, Rice, & Harris, 1995). As a result,

because specific types of sex offenders may have specific individual and familial characteristics, differences between groups should be taken into account when interpreting research results.

Because it remains unclear whether juvenile sex offenders differ from non-sex offenders with respect to non-offense-related characteristics, the aim of the current article is to review studies comparing both groups on a wide range of individual, familial, and environmental characteristics. In addition, because the heterogeneity of juvenile sex offenders is of both clinical and scientific importance, the focus will be on distinct groups of sex offenders.

METHOD

To retrieve relevant articles, electronic databases (Medline and PsycInfo) were searched for combinations of the following key words: *juvenile sex offenders* (415 Medline and 36 PsycInfo hits, respectively), *adolescent sex offenders* (407 and 55 hits), *young sex offenders* (60 and 7 hits), *comparative studies AND sexual offending* (23 and 0 hits), *comparative studies AND juvenile offending* (60 and 0 hits), *juvenile sex AND non-sex offenders* (8 and 2 hits). Each reference and abstract on these lists was checked to determine whether or not a study had the required design. Recent research articles published in peer-reviewed journals (publication date from 1995 until 2005) having the following characteristics were eligible for inclusion:

- A clear comparison of sex offenders and non-sex offenders was presented.
- The lower age range of the participants was younger than 21 years.
- Because it was expected that studies on sexually offending females would be extremely rare, only studies on males were included.
- Assessment was done by means of standardized instruments and/or a systematic analysis of official (police, judicial, health care) records.
- The sample included at least 30 sex offenders and 30 non-sex offenders.

No limitations were imposed on the nature of characteristics compared or the type of (sex) offenses participants had committed. Studies

focusing specifically on the evaluation of treatment programs were not included.

To present a systematic description of the results, sample characteristics will be discussed first, followed by a comparison of both groups of offenders on the following factors: demographics, family characteristics (family functioning, parental characteristics), and individual characteristics (neurological or cognitive functioning, psychopathology, adjustment problems, antisocial attitudes, sexual development and functioning, criminality and risk behavior, and peer relationships).

Only statistical differences at p values of less than .05 are included. Some studies report on differences and similarities between sex offenders and non-sex offenders.

RESULTS

We found 17 eligible articles, all published between 1995 and 2005 (see Table 1). The mean sample size of the sex offender subgroups was relatively small: 105 ($SD = 97$), range 30 to 304. In 9 (53%) of the studies, sex offenders were considered a homogeneous group, or the authors did not differentiate the group by type of sex offense. The sex offender populations consisted predominantly (16; 94%) of incarcerated or adjudicated juveniles who were referred to diagnostic and treatment centers. In contrast to the sex offenders, the mean sample size of the non-sex offender groups was large: 513 ($SD = 1,374$), range 38 to 5,778. The nature of the offenses was defined (i.e., violent, aggressive, property related) in only 6 studies (35%).

All but 3 (18%) studies used a cross-sectional design. Exceptions were 2 studies (Hagan, Gust-Brey, Cho, & Dow, 2001; Sipe, Jensen, & Everett, 1998) in which juvenile offenders were continually followed into adulthood and one

Because it remains unclear whether juvenile sex offenders differ from non-sex offenders with respect to non-offense-related characteristics, the aim of the current article is to review studies comparing both groups on a wide range of individual, familial, and environmental characteristics.

TABLE 1: Sample Characteristics

<i>Study</i>	<i>Sex Offenders (n)</i>	<i>Non-Sex Offenders (n)</i>	<i>Population</i>	<i>Research Design</i>	<i>Method</i>	<i>Instruments</i>
Bischof, Stith, and Whitney (1995)	39 sex offenders (child molesters)	25 violent and 41 nonviolent offenders	Juveniles in various outpatient and residential programs	Cross-sectional	Questionnaires and tests	FES
Burton, Miller, and Shill (2002)	272 sex offenders (mix)	199 non-sex offenders (mix)	Juveniles in treatment facilities	Cross-sectional	Tests	SAEQ, BIDR
Butler and Seto (2002)	32 sex offenders (20 only sex offenses; 12 sex plus)	48 versatile offenders; 34 nonaggressive offenders	Consecutive referred to court clinic for mental health assessment	Cross-sectional	File materials; interviews with boys and parents	YO-LSI, YSR, CSS
Daleiden, Kaufman, Hilliker, and O'Neil (1998)	302 sex offenders	124 non-sex offenders and 135 nonoffenders	Incarcerated adolescents (10-20 years)	Cross-sectional	Questionnaires	SHF, SFQ
Ford and Linney (1995)	14 rapists, 21 child molesters	26 violent and 21 status offenders	Adjudicated or incarcerated youths in state operated facilities	Cross-sectional	Interview, files, and questionnaires	CTS, CABS, FIRO-B, PHCSC
Hagan, Gust-Brey, Cho, and Dow (2001)	50 rapists, 50 child molesters	50 non-sex offenders	Youths placed in a correctional facility	Longitudinal (only for sex offenders); non-sex offenders were randomly selected	Official records	Not used
Jacobs, Kennedy, and Meyer (1997)	78 sex offenders	78 (non) violent offenders	Incarcerated juveniles	Cross-sectional	Resident files (rating)	WAIS-R, WISC-R, WRAT-R, WRAT-3, MMPI-A, MMPI-2, PCL-R
Jonson-Reid and Way (2001)	304 sex offenders	3,091 violent and 2,687 nonviolent offenders	Incarcerated juveniles	Cross-sectional	File research or administrative data	
Lindsey, Carlozzi, and Eells (2001)	46 sex offenders (mix)	48 non-sex offenders	Consecutive referrals to a assessment or treatment center	Cross-sectional	Official records; interviews	

Miner and Munns (2005)	78 sex offenders (majority child molesters)	156 non-sex offenders (property, violence) and 80 nondelinquent youths	Outpatient and inpatient treatment programs for sex offenders; a stratified sample of nondelinquent males	Cross-sectional	Structured interview	Instruments
Racey, Lopez, and Schneider (2000)	36 sex offenders (mix)	38 non-sex offenders (mix)	Incarcerated (most of the non-sex offenders)	Cross-sectional	Tests	Instrument derived from the Denver Youth Study
Sipe, Jensen, and Everett (1998)	164 nonviolent sex offenders (majority child molesters)	142 non-sex offenders	Adjudicated juveniles	Longitudinal	Official records	IPT-15, RFES, RoHI, SoHI, CDS, SKQ
Spaccarelli, Bowden, Coatsworth, and Kim (1997)	50 sex offenders (24 arrested, 26 self-report)	106 violent offenders, 54 low-violent offenders	Incarcerated juveniles	Cross-sectional	Self-administered interview; official records	ATPSA, MHS, PC, CTS, CCSC, CS
Veneziano, Veneziano, LeGrand, and Richards (2004)	60 sex offenders	60 non-sex offenders (nonviolent)	Court ordered	Cross-sectional	Tests	TMT, COWA, ToF, WCST
van Wijk, Vreugdenhil, and Bullens (2004)	30 sex offenders (mix)	368 non-sex offenders	Incarcerated juveniles	Cross-sectional	Tests	DISC, YSR, VGJ, ATL, GIT
van Wijk, van Horn, Bullens, Bijleveld, and Doreleijers (2005)	57 sexual assaulters, 55 child molesters	85 violent offenders and 80 nonviolent offenders	Referred to a institute for psychological evaluation	Cross-sectional	Tests	Raven, ATL, ABV
van Wijk, Loeber, et al. (2005)	39 violent sex offenders	430 violent and 517 moderate or minor delinquents	Boys in grades 1, 4, and 7 of public schools	Prospective; longitudinal	Official records; tests; interviews with parents, boys and teachers	SRD, CBCL, TRF, YSR, DISC

NOTE: FES = Family Environment Scale; SAEQ = Sexual Abuse Exposure Questionnaire; BDR = Balanced Inventory of Desirable Responding; YO-LSI = Young Offender-Level of Service Inventory; CSS = Criminal Sentiments Scale; SHF = Sexual History Form; SFQ = Sexual Fantasy Questionnaire; CTS = Conflict Tactics Scale; CABS = Children's Assertive Behavior Scale; FIRO-B = Fundamental Interpersonal Relations Orientation-Behavior Questionnaire; PHCSC = Piers-Harris Children's Self-Concept Scale; WAIS-R Wechsler Adult Intelligence Scale-Revised; WISC-R = Wechsler Intelligence Scale for Children; WRAT-R = Wide Range Achievement Test-Revised; WRAT-3 = Wide Range Achievement Test-3; MMPI-A = Minnesota Multiphasic Personality Inventory-Adolescent; MMPI-2 = Minnesota Multiphasic Personality Inventory-2; PCL-R = Psychopathy Checklist-Revised; IPT-15 = Interpersonal Perception Task-15; WRAT-III = Wide Range Achievement Test-III; RFES = Receptive Facial Expressions Subtest; RoHI = Rating of Heterosexual Interactions; SoHI = Survey of Heterosexual Interactions; CDS = Cognitive Distortion Scale; SKQ = Sexual Knowledge Questionnaire; ATPSA = Attitudes toward physical and sexual aggression; CDI = Children's Depression Inventory; RCMAS = Revised Children's Manifest Anxiety Scale; TSC = Trauma Symptoms Checklist for Children; SrSV = Self report of Sexual Victimization; PC = Perceived competence; CTS = Conflict Tactics Scale; CCSC = Children's Coping Strategies Checklist; CS = Coping strategies; TMT = Trail Making Test; COWA = Controlled Oral Word Association; ToF = Tower of London; WCST = Wisconsin Card-sorting Test; DISC = Diagnostic Interview Schedule for Children; VGJ = Questionnaire Information Juveniles; ATL = Adolescent Temperament Questionnaire; GIT = Groninger Intelligence Test; ABV = Amsterdam Biographic Questionnaire; SRD = Self-reported Delinquency Instrument; CBCL = Child Behavior Checklist; TRF = Teacher Report Form.

TABLE 2: Demographic Factors

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Bischof, Stith, and Whitney (1995)	Race, parental employment	Younger
Butler and Seto (2002)	Age, grade, socioeconomic status (SES)	Lower scores on accommodation problems
Burton, Miller, and Shill (2002)	Age	
Ford and Linney (1995)	Age, educational status	
Jacobs, Kennedy, and Meyer (1997)		Older at time of first referral
Jonson-Reid and Way (2001)		Older when entering facility
Veneziano, Veneziano, LeGrand, and Richards (2004)	Age, grade	Race (more White boys)
van Wijk, Vreugdenhil, and Bullens (2004)	Race, living in family	Younger
van Wijk, van Horn, Bullens, Bijleveld, and Doreleijers (2005)		Younger, more nonminority, especially child molesters
van Wijk, Loeber, et al. (2005)	Low SES, race, family on welfare, broken family, small house	Bad neighborhood, older, poor housing, young mother, poorly educated mother

a. Statistically significant is $p < .05$.

longitudinal study in which juvenile sex offenders were followed within a normal population sample (van Wijk, Loeber, et al., 2005).

Structured interview methods, questionnaires, or psychological tests were most frequently used for collecting information. Nearly one fourth of the studies relied exclusively on clinical or judicial file information (4, 24%), in 7 (41%) only questionnaires or tests were used, whereas a combination of methods was applied in 6 (35%). The Youth Self-Report was used most often (3 studies; Achenbach, 1991). Two (12%) studies applied a multi-informant (parents and offenders) design for obtaining information, whereas all other studies relied uniquely on information provided by the juveniles or their parents or teachers.

Ten articles reported on demographic factors (Table 2). Three of them described sex offenders as being significantly younger than non-sex offenders (Bischof, Stith, & Whitney, 1995; van Wijk, van Horn, Bullens, Bijleveld, & Doreleijers, 2005; van Wijk, Vreugdenhil, & Bullens, 2004), whereas another 3 found sex offenders to be older (Jacobs, Kennedy, & Meyer, 1997; Jonson-Reid & Way, 2001; van Wijk, Loeber, et al., 2005). Four studies did not find differences with regard to age (Burton, Miller, & Shill, 2002; Butler & Seto, 2002; Ford & Linney, 1995; Veneziano, Veneziano, LeGrand, & Richards, 2004). Of the 5 studies reporting on ethnicity, 2 studies found Caucasians to be more prevalent in the group of sex offenders (Veneziano et al.,

2004; van Wijk, van Horn, et al., 2005). In the remaining 3 studies, no differences were found between groups on race (Bischof et al., 1995; van Wijk et al., 2004; van Wijk, Loeber, et al., 2005). With regard to family socioeconomic status, parental employment, and educational status, 4 studies did not find differences between sex offenders and non-sex offenders (Bischof et al., 1995; Butler & Seto, 2002; Ford & Linney, 1995; van Wijk, Loeber, et al., 2005). One study (van Wijk, Loeber, et al., 2005), investigating a range of demographic variables, found several to be similar between sex offenders and non-sex offenders (family on welfare, broken family, small house), whereas other variables differed between groups (bad neighborhood, poor housing, young mother, poorly educated mother).

Although information about family functioning and background were reported in 6 studies (Table 3), the diversity of the family variables included did not allow systematic comparison. At first glance, the similarities seem to outnumber the differences. Intrafamilial violence or the witnessing of intrafamilial violence was described in 3 studies, with 2 describing a higher frequency of exposure to violence in sex offenders (Ford & Linney, 1995; Spaccarelli, Bowden, Coatsworth, & Kim, 1997), whereas 1 study did not find differences on this characteristic (Spaccarelli et al., 1997). Two studies reported on criminal and mental health problems of the parents and found these characteristics to be

TABLE 3: Family Functioning and Backgrounds

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Bulter and Seto (2002) Ford and Linney (1995) Jonson-Reid and Way (2001)	Family (size, structure, criminal history) Prior investigated reports of child abuse or neglect	Fewer family problems More parental violence (child molesters)
Spaccarelli, Bowden, Coatsworth, and Kim (1997)	Serious adult or parent violence	Compared with low-violence offenders, more exposure to serious physical abuse and domestic violence involving weapons; compared with serious violent offenders, there were no differences
van Wijk, Vreugdenhil, and Bullens (2004)	Crime, use of drugs, psychopathology, and conflicts of the parents	
van Wijk, Loeber, et al. (2005)	Punishment, supervision, boy not involved, positive parenting, poor relationship with parents, parental stress and communication, counter control substance use biological mother and father, ^b anxiety, depression, or suicide biological mother, and father behavior problems biological mother and father	Discipline less persistent

a. Statistically significant is $p < .05$.

b. This topic covers the following questions: Behavior worsens after punishment? Worry that discipline makes him stubborn? Hesitate to discipline because you fear he will harm someone?

TABLE 4: Intellectual and Neurological Functioning

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Butler and Seto (2002) Ford and Linney (1995) Jacobs, Kennedy, and Meyer (1997) Jonson-Reid and Way (2001)	Current grade IQ IQ, academic achievement	Fewer education or employment problems
Veneziano, Veneziano, LeGrand, and Richards (2004)	Neuropsychological dysfunction	More special education Higher IQ
van Wijk, van Horn, Bullens, Bijleveld, and Doreleijers (2005)	Special education	Lower IQ
van Wijk, Vreugdenhil, and Bullens (2004) van Wijk, Loeber, et al. (2005)	Special school	Low academic achievement

a. Statistically significant is $p < .05$.

similar between the sex offender and the non-sex offender groups (van Wijk et al., 2004; van Wijk, Loeber, et al., 2005).

Eight studies reported data on intellectual and neurological functioning (Table 4), with inconsistent results. Some studies found no differences regarding IQ, special school attendance, or neurological problems (Butler & Seto, 2002; Ford & Linney, 1995; Jacobs et al., 1997; Veneziano et al., 2004; van Wijk et al., 2004; van Wijk, van Horn, et al., 2005), whereas others

reported differences between sex offenders and non-sex offenders on some of these aspects (Butler & Seto, 2002; Jonson-Reid & Way, 2001; Veneziano et al., 2004; van Wijk, van Horn, et al., 2005; van Wijk, Loeber, et al., 2005).

Eight articles reported on personality characteristics and behavioral problems among the juveniles (Table 5). In 5 studies, the authors stated that sex offenders were likely to have personality and behavioral problems (Ford & Linney, 1995; Jacobs et al., 1997; Jonson-Reid &

TABLE 5: Personality and Behavioral Problems

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Butler and Seto (2002)	Childhood conduct problems (0-11 years), current behavioral adjustment	Fewer conduct problems from age 12 and up, lower scores on psychological variables; sex-only offenders fewer childhood conduct problems, better current behavioral adjustment than sex-plus offenders
Ford and Linney (1995)	Assertiveness, self-concept	
Jacobs, Kennedy, and Meyer (1997)	PCL-R scores, MMPI scores	Higher MMPI F-score (psychopathology)
Jonson-Reid and Way (2001)		More social emotional disturbance
Spaccarelli, Bowden, Coatsworth, and Kim (1997)	Coping strategies	
van Wijk, van Horn, Bullens, Bijleveld, and Doreleijers (2005)	Self-esteem	Special school because of behavioral problems, less extravert and impulsive, more neurotic, less school dropout
van Wijk, Vreugdenhil, and Bullens (2004)	Affective, anxiety, disruptive and psychotic disorders; internalizing or externalizing behavior, neuroticism, thrill seeking behavior, extraversion, impulsivity; psychosocial assistance	Less substance use disorders, less disinhibition
van Wijk, Loeber, et al. (2005)	Disruptive diagnosis, CD, OPD, ADHD, HIA, depression, anxiety; withdrawn or shy, nonphysical aggression ^b	More runaways

NOTE: PCL-R = Psychopathy Checklist-Revised; MMPI = Minnesota Multiphasic Personality Inventory; CD = Cognitive Disorder; OPD = Oppositional Defiant Disorder; ADHD = Attention Deficit/Hyperactivity Disorder; HIA = Hyperactivity-Impulsivity-Attention Problems.

a. Statistically significant is $p < .05$.

b. See Loeber and Farrington (1998) for a explanation of these constructs.

TABLE 6: Attitudes

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Butler and Seto (2002)	Antisocial attitudes and beliefs	Sex-only offenders more prosocial attitudes and beliefs
Miner and Munns (2005)	Conventional attitudes; family, peers, and school normlessness	
Spaccarelli, Bowden, Coatsworth, and Kim (1997)		Compared to low-violent group, more acceptance of sexual and physical aggression and more use of aggressive control seeking in response to stress; compared to serious violent offenders, there were no differences
van Wijk, Loeber, et al. (2005)	Attitudes toward school, delinquency, substance abuse, problem behavior, religion, unlikely get caught	

a. Statistically significant is $p < .05$.

Way, 2001; van Wijk, van Horn, et al., 2005; van Wijk, Loeber, et al., 2005). Three studies found that sex offenders had fewer personality and behavioral problems than non-sex offenders (Butler & Seto, 2002; van Wijk et al., 2004; van Wijk, van Horn, et al., 2005). In 7 studies, no differences emerged between both groups with regard to personality and behavioral problems (Butler & Seto, 2002; Ford & Linney, 1995; Jacobs et al., 1997; Spaccarelli et al., 1997; van

Wijk et al., 2004; van Wijk, van Horn, et al., 2005; van Wijk, Loeber, et al., 2005).

Four studies reported sex offenders to be similar to non-sex offenders in (antisocial) attitudes (Butler & Seto, 2002; Miner & Munns, 2005; van Wijk, Loeber, et al., 2005), whereas one study (Spaccarelli et al., 1997) found that sex offenders had a greater tendency toward sexually and physically aggressive attitudes than did mildly violent offenders (Table 6). No such differences

TABLE 7: Sexual Abuse, Development, Functioning

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Burton, Miller, and Shill (2002)		More sexually victimized, closer relationships with their perpetrator, more male perpetrator, longer duration of the abuse, more forceful abuse, and penetration as part of the abuse
Daleiden, Kaufman, Hilliker, and O'Neil (1998)	Atypical voyeuristic experiences and fewer nondeviant sexual fantasies	Fewer consenting sexual experiences and more involvement in nonconsenting and paraphilic behaviors; more solitary sexual acts; higher frequency of deviant and nontraditional sexual fantasies
Ford and Linney (1995)	X-rated movies and TV programs	Child molesters were more often victims of physical and sexual abuse; earlier and more frequent exposure to pornographic materials
Jonson-Reid and Way (2001)		Sexual and physical abuse more common than neglect
Lindsey, Carlozzi, and Eells (2001)		More sexual abuse and less physical abuse
Racey, Lopez, and Schneider (2000)	Knowledge of sexuality	Fewer cognitive distortions
Spaccarelli, Bowden, Coatsworth, and Kim (1997)	Sexual abuse	
Veneziano, Veneziano, LeGrand, and Richards (2004)		More sexual abuse
van Wijk, Loeber, et al. (2005)	Sexual or physical abuse, sexual intercourse, number of female partners, age of first intercourse	

a. Statistically significant is $p < .05$.

appeared when sex offenders were compared to severely violent offenders. Although Butler and Seto (2002) found sex offenders and non-sex offenders to be similar, sex-only offenders were described as having more prosocial attitudes and beliefs compared to sex offenders who also perpetrated nonsex offenses as well.

Nine articles reported on the prevalence of sexual abuse and the sexual development and functioning of sex offenders and non-sex offenders (Table 7). In 4 studies, sex offenders were more likely than were non-sex offenders to have been sexually abused (Burton et al., 2002; Ford & Linney, 1995; Jonson-Reid & Way, 2001; Veneziano et al., 2004), whereas 2 studies did not find such a difference (Spaccarelli et al., 1997; van Wijk, Loeber, et al., 2005). With regard to sexual development and functioning, 2 studies (Daleiden, Kaufman, Hilliker, & O'Neil, 1998; Ford & Linney, 1995) found that sex offenders were more emotionally disturbed (e.g., more deviant sexual fantasies, fewer consenting sexual experiences, exposure to pornographic materials) compared to non-sex

offenders, whereas one study found no differences with regard to atypical sexual experiences and fantasies (Daleiden et al., 1998), and still another found fewer cognitive distortions among sex offenders (Racey, Lopez, & Schneider, 2000). van Wijk, Loeber, et al. (2005) found that the age of first sexual intercourse and the number of female partners were similar for sex offenders and non-sex offenders.

Three studies out of 6 found a lower level of non-sexual offending in sex offenders than in non-sex offenders (Butler & Seto, 2002; Jacobs et al., 1997; Sipe et al., 1998), whereas in 3 studies, no differences

With regard to sexual development and functioning, 2 studies found that sex offenders were more emotionally disturbed (e.g., more deviant sexual fantasies, fewer consenting sexual experiences, exposure to pornographic materials) compared to non-sex offenders, whereas one study found no differences with regard to atypical sexual experiences and fantasies, and still another found fewer cognitive distortions among sex offenders.

TABLE 8: History of Non-Sexual Offending and Use of Drugs

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Bulter and Seto (2002)		Lower risk for further delinquency, lower scores on criminal history
Hagan, Gust-Brey, Cho, and Dow (2001)	Number of additional sexual assaults perpetrated as an adult (for child molesters and rapists compared with non-sex offenders)	Combined group of sex offenders more likely to sexually reoffend than non-sex offenders
Jacobs, Kennedy, and Meyer (1997)		Fewer prior delinquent referrals, fewer commitments to custody for delinquent acts, and fewer assignments to specialized treatment groups
Sipe, Jensen, and Everett (1998)		Higher rate of recidivism for sexual offenses and lower rates for non-sexual crimes as adults
van Wijk, Vreugdenhil, and Bullens (2004)	Police arrest before 13 years; use of psychopharmeca	More compulsory treatment
van Wijk, Loeber, et al. (2005)	Total delinquency, theft, fraud, serious delinquency, use of (hard) drugs, smoking, drugs exposure	

a. Statistically significant is $p < .05$.

TABLE 9: Peer Functioning

<i>Studies</i>	<i>Similarities</i>	<i>Differences (Sex Offenders Versus Non-Sex Offenders)^a</i>
Butler and Seto (2002)	Age of peers, perceived ability to establish peer relations, acceptance	Lower scores on peer problems
Ford and Linney (1995)		Child molesters experienced greater need for control and inclusion in relationships; rapists were more detached with less desire to initiate affectional contacts
Miner and Munns (2005)	Cue perception, social skills	More peer isolation
Racey, Lopez, and Schneider (2000)		Less performance regarding facial expression task, rated target as more sexy in nonrevealing clothing
van Wijk, van Horn, Bullens, Bijleveld, and Doreleijers (2005)	Bad friends, peers' delinquency and substance use, unconventional friends ^b	More problems
van Wijk, Loeber, et al. (2005)		

a. Statistically significant is $p < .05$.

b. See Loeber and Farrington (1998) for an explanation of these variables.

were found (Hagan et al., 2001; van Wijk et al., 2004; van Wijk, Loeber, et al., 2005). Compared to non-sex offenders, sex offenders were found to be more likely to reoffend sexually (2 studies: Hagan et al., 2001; Sipe et al., 1998). Only one study described substance use; the authors found that sex offenders were similar to non-sex offenders in drug and alcohol use (van Wijk, Loeber, et al., 2005; Table 8).

Six studies reported on peer functioning (Table 9). Three studies reported that sex offenders were more likely to have peer relationship problems than were non-sex offenders (Ford & Linney, 1995; Miner & Munns, 2005; Racey et al., 2000), whereas one study described the opposite (Butler & Seto, 2002). Three studies found no differences with regard to problems in peer relations (Ford &

Linney, 1995; Racey et al., 2000; van Wijk, Loeber, et al., 2005).

CONCLUSION

The aim of this literature review was to compare juvenile sex offenders and non-sex offenders with respect to individual, familial, and environmental characteristics. After systematically searching relevant literature databases, we found 17 articles comparing juvenile sex offenders and non-sex offenders. The mean number of participants in the sex offender subgroups ($n = 105$) was smaller than in the non-sex offender subgroups ($n = 513$), and most samples were derived from incarcerated populations. A number of studies did not meet inclusion criteria, mainly because they included relatively small samples or were not considered because they were published before 1995 (e.g., Benoit & Kennedy, 1992; Epps, Haworth, & Swaffer, 1993; Fagan & Wexler, 1988; Losada-Paisey, 1998; Rubinstein, Yeager, Goodstein, & Lewis, 1993; Tarter, Hegedus, Alterman, & Katz-Garris, 1983; Truscott, 1993; Valliant & Bergeron, 1997).

Caution should be taken when interpreting the results because of large methodological differences among studies. A limitation of the studies is the existence of methodological issues that may have hampered comparisons among studies. The diagnostic instruments used in the studies were diverse, varying from widely used standardized instruments to unknown ones and including questionnaires and interviews of a specific nature. These instruments were often used for measuring similar concepts in different ways. The nature of the samples was diverse and not always well described. Although a substantial number of the juveniles came from detention centers, the homogeneity of this group is disputable because vast differences may exist among countries and even regions with respect to the judicial and rehabilitation principles for detention. As a consequence, generalization toward nondetention samples may more be problematic. Also, only a few studies took into account confounding factors such as the earlier-described heterogeneity of the sex offender group with regard to type of sexual

offending and the nonsexual offending. Nevertheless, because differences were seen between the two groups, it is likely that sex offenders are different from non-sex offenders in specific ways. However, inconsistent findings among studies, and the many similarities found between the two groups, make further research that takes into account methodological issues and possible confounding factors necessary.

Because specific risk factors may be more common in detained youth, statistical comparison may be flawed. For example, studies on psychiatric disorders in incarcerated delinquent adolescents have indicated that many show a psychiatric disorder (Vermeiren, 2003; Vreugdenhil, Doreleijers, Vermeiren, Wouters, & van den Brink, 2004). Because the prevalence of psychiatric disorders is so high, psychopathology may not be useful as a discriminative factor among subgroups of incarcerated populations. Similar statistical problems may exist for other risk factors, such as family problems or substance use. Also, possible differential judicial selection mechanisms for juvenile sex offenders and non-sex offenders and demographic differences can make comparisons difficult between these groups (see van Wijk et al., submitted).

Although it has been acknowledged that juvenile offenders constitute a heterogeneous group, only a small number of studies have differentiated among subtypes of offenders. For this reason, possible differences among subtypes of sex offenders may have remained undetected (Beckett, 1999), and differences between non-sex offenders and specific subgroups of sex offenders may have gone unnoticed. A complicating factor is that one sex offender may perpetrate different kinds of sex offenses, as was recently found in adults (Heil, Ahlmeyer, & Simons, 2003). Because child molesters may also rape adult women and rapists of adult women may also molest children, some individuals will be difficult to classify. This issue could be even more complicated in juveniles because juvenile sex offenders may be even more undifferentiated with respect to victim selection, partly because of less pronounced age differences between perpetrator and victim.

All but three studies adopted a cross-sectional research design. Although this type of

research is suitable for determining correlational relations, it does not allow for detecting etiological factors and/or developmental patterns of problem behavior.

A last limitation concerns the nature of the measured variables, namely that factors specifically related to sexuality and sex offending have only rarely been studied. Specific and possibly crucial factors that have not been compared between sex offenders and non-sex offenders are *modus operandi* (Hunter et al., 2000), cognitive distortions (Ward, Hudson, & Marshall, 1995; Ward, Keenan, & Hudson, 2000), the development of deviant sexual experiences and fantasies (Abel et al., 1987), and empathy (Burke, 2001; Hanson & Scott, 1995; Hudson & Ward, 2000).

Differences Between Sex Offenders and Non-Sex Offenders

The findings of this review suggest that sex offenders are more likely to display internalizing problems than are non-sex offenders. These characteristics may however prevail in a specific subgroup of sex offenders, specifically the child molesters (e.g., Hendriks & Bijleveld, 2004; Katz, 1990; van Wijk, van Horn, et al., 2005).

A consistent finding across studies was that juvenile sex offenders were more often sexually abused in their childhood than were non-sex offenders. However, not all juvenile sex offenders have a history of sexual abuse, and not all sexually abused children become offenders

Future research should differentiate between participants committing only sex offenses and those who have perpetrated both sex and nonsex offenses. Some studies have found that sex-only offenders displayed fewer behavioral problems than did pervasive offenders (Butler & Seto, 2002; Kempton & Forehand, 1992). With regard to externalizing problem behavior, the findings were rather inconsistent (e.g., Freeman, Dexter-

Mazza, & Hoffman, 2005). More research should be undertaken to verify the hypothesis that a violent sex offense is a manifestation of a general criminal behavioral pattern and is

closely related to externalizing problem behavior, which violent sex offenders could share with non-sex offenders (Lussier, 2005).

A considerable number of the sex offenders showed a history of nonsex offending, although the rate of nonsex offending was lower than in non-sex offenders. Lower levels of antisocial tendencies can be assumed to be more present among minor delinquents compared to serious delinquents, who exhibit a wide range of antisocial acts such as nonsex offenses (e.g., Loeber & Farrington, 1998). Future research should investigate to what extent sex offenders or subgroups of sex offenders differ with respect to nonsex offending and also whether sex offenders who do not commit nonsexual offenses differ from sex offenders who commit nonsexual offenses and from non-sex offenders with respect to other risk factors.

Sex offenders may exhibit more problems in peer relationships than non-sex offenders, but this is based on a small number of studies. Previous research has shown that sex offenders may be less able to establish and maintain emotional relationships with others (Barbaree, Marshall, & Hudson, 1993). Several studies have indicated that social isolation is primarily a characteristic of child molesters (e.g., Ford & Linney, 1995; Hendriks & Bijleveld, 2004; Katz, 1990; van Wijk, 1999).

A consistent finding across studies was that juvenile sex offenders were more often sexually abused in their childhood than were non-sex offenders. However, not all juvenile sex offenders have a history of sexual abuse, and not all sexually abused children become offenders (Becker & Hunter, 1997). Having a history of sexual abuse may specifically be a characteristic for child molesters (Becker & Hunter, 1997; Ford & Linney, 1995; Hendriks & Bijleveld, 2004). Because the causal relationship between sexual abuse and sexual offending has not been elucidated, further research on this topic is needed.

Inconsistent Results

With regard to the demographic factors, inconsistent results were found when comparing

the age of both groups. These inconsistencies may have resulted from methodological differences between studies (e.g., the inclusion of specific groups). Some studies used demographic variables for matching samples of juvenile delinquents, which forces the age distribution to be similar. Data from one population study indicated that sex offenders were significantly older at the time of their first offense than were violent offenders (van Wijk, Loeber, et al., 2005). Several other studies (e.g., Bischof et al., 1995; Blaske, Borduin, Henggeler, & Mann, 1989; McCraw & Pegg-McNab, 1989; Oliver, Hall, & Neuhaus, 1993) found no ethnic differences between sex offending and nonsex offending groups, whereas another study (van Wijk et al., 2003) revealed that Caucasians were more common among the sex offender group and that ethnic minorities were overrepresented in the group of violent sex offenders (van Wijk, Mali, Bullens, Prins, & Klerks, 2006). According to Murphy, DiLillo, Haynes, and Steere (2001), Caucasian participants tended to respond higher than African American participants on sexual arousal, a finding that further supports research on ethnic differences with respect to type of offending.

With regard to intellectual and neurological functioning, inconsistent results also prevailed. Because neurocognitive malfunctioning may be considered a general vulnerability to problem behavior (Jonson-Reid & Way, 2001; Lewis, Shanok, & Pincus, 1979), sex offenders and non-sex offenders may be expected to show deficits in this respect. However, because specific aspects of neuropsychological functioning have not been examined, potential differences between the groups may remain unknown. Veneziano et al. (2004) demonstrated that a subset of sex offenders and non-sex offenders had a pattern of frontal-executive dysfunction, whereas Guay, Ouimet, and Proulx (2005) found significant differences on intellectual levels between sex offenders and nonsex, violent offenders. Kelly, Richardson, Hunter, and Knapp (2002) found differences between sex offenders and

age-matched male adolescents. Further research among different samples of juvenile offenders is therefore desirable.

This review found that family characteristics of sex offenders and non-sex offenders were difficult to compare. One interesting question is whether families of sex offenders are more inclined to cover up the problem than are families of non-sex offenders. Baker, Tabacoff, Tornusciolo, and Eisenstadt (2003) found that families of sex offenders told more lies, had more family myths, and were more likely to be involved in taboo behavior. A consequence of this attitude may be that problems within the families of sex offenders are not well recognized, whereas these families may well be more disturbed than families of non-sex offenders. On the other hand, family characteristics may play a role in the development of offending behavior in general rather than sexual behavior in particular (e.g., Caputo, Frick, & Brodsky, 1999).

Inconsistent results were also found when comparing antisocial attitudes, which may result from the diversity of methods used to measure antisocial attitudes. Research among adult sex offenders and non-sex offenders found that the former endorsed fewer antisocial attitudes than the latter and that rapists endorsed more antisocial attitudes than did child molesters (Mills, Anderson, & Kroner, 2004).

On the basis of the current literature, clear and consistent conclusions regarding similarities and differences between sex offenders and non-sex offenders cannot be drawn. Because recognition of specific characteristics is necessary for developing targeted prevention and intervention programs, further research in this field is vital. If further research reveals significant differences among different types of sex offenders and non-sex offenders, more differentiated and effective diagnostics and treatment can be developed. Future studies should also attempt to address the methodological limitations found in much of the existing body of research.

IMPLICATIONS FOR PRACTICE, POLICY, AND RESEARCH

- Longitudinal research can explore etiological differences more in detail.
- It is important to include groups of offenders from settings other than incarcerated youths.
- To obtain comparable research results, researchers should make use of internationally accepted and standardized instruments.
- Identification of differences in future research among different types of sex offenders and non-sex offenders may lead to more adequate differentiation and treatment interventions (specific treatment needs).

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SUGGESTED FUTURE READINGS

- Barbaree, H. E., & Marshall, W. L. (2006). *The juvenile sex offender* (2nd ed.). New York: Guilford Press.
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